

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012057**Date Inspected:** 25-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Yu Dong Ping, Liu Zhong An			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Tower		

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10 SOUTH TOWER LIFT 4 SKIN D PADEYES (GREEN TAG NO. 11597)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

SSD1-FDSA4-1A/C-26~33, 36, 37 (VT)

SSD1-FDSA4-1A/C-34, 35 (VT & MT)

BAY 10 SOUTH TOWER LIFT 2 SKIN D PADEYE AFTER REPAIR (GREEN TAG NO. 8364R1)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

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SSD1-SA208A/D-19

BAY 11 TOWER STRUT FLANGE

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ED1-STSA4-6-131M-1-7, 8A/B

ND1-STSA4-6-127M-1-7, 8A/B

ND1-STSA4-6-127M-2-7, 8A/B

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 10

SOUTH TOWER LIFT 5 B/C CORNER SEAM

SMAW welding of weld joint 38B located on SSD1-TL5-1B/F.

Welder is identified as 050289. ZPMC QC is identified as Mr. Deng Zhi Bing.

The welding variables recorded by QC appeared to comply with WPS-B-T-3212-Tc-U5b-1.

NORTH TOWER LIFT 5 BEARING PLATE REPAIR

SMAW welding of weld joint 4A/B(Repair) located on ND1-BPSA5-3.

Welder is identified as 057258. ZPMC QC is identified as Jiang La Mei.

The welding variables recorded by QC appeared to comply with WPS-485-SMAW-1G(1F)-REPAIR-1.

NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

FCAW welding of weld joint 88 located on NSTL4-3K/L.

Welder is identified as 066236. ZPMC QC is identified as Mr. Sun Tian Liang.

The welding variables recorded by QC appeared to comply with WPS-B-T-4332-Tc-P4-F.

NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

FCAW welding of weld joint 23 located on NSTL4-3K/L.

Welder is identified as 066236. ZPMC QC is identified as Mr. Sun Tian Liang.

The welding variables recorded by QC appeared to comply with WPS-B-T-4333-Tc-P4-F.

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Strut Flange, this Quality Assurance Inspector (QA) discovered One (1) longitudinal indication measuring approximately 18mm in length, a depth of 5mm. The db rating is a +10, the material thickness is 16mm. For additional information please see the UT report for this date. The weld is identified as: ND1-STSA4-6-127M-2-8A/B. The Weld is a Complete Joint Penetration (CJP) butt weld joining the 16mm web plate (Grade 345), to the 32mm web plate (Grade 485). The "Y" location of the indication is 50mm and the indication is clearly marked on the weld and member. The material is designated as Seismic Performance Critical Member (SPCM). The member is located in Bay 11. The

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Notice of Witness Inspection Number (NWIT) is 005135. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform one hundred (100%) percent UT inspection of this weld.

Later on ZPMC ground the weld cap flush and eliminated this indication and this QA inspector performed UT on the same joint and the result found satisfactory.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest : 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
